

REMARKS

Claims 22-43 pending in this application. By this Amendment, claims 22, 35 and 36 are amended and claims 39-43 are added. The amendments introduce no new matter because they are supported by at least the claims as previously filed, or are made to overcome informalities Applicant discovered in preparing this response. Claims 39-43 are supported by the original specification in one or more of the following paragraphs: [0089], [0090] and [0105]-[0107]. Reconsideration of the application based on the above amendments and the following remarks is respectfully requested.

The Office Action, in paragraph 2, rejects claims 22-35, 37 and 38 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,692,292 to Asai et al. (hereinafter "Asai"). This rejection is respectfully traversed.

Asai teaches a circuit board fabricating system where a conveyor device moves circuit boards through working stations (col. 1, lines 6-16). A controller of each working module provides a system controller with status of each operation (col. 3, lines 1-16).

The Office Action alleges Asai teaches the subject matter of the enumerated claims by presenting a substrate conveyor, a working head, detectors and a substrate stop position controller that the Office action alleges correspond to features positively recited in, for example, independent claim 22. The analysis of the Office Action fails for at least the following reasons.

Claim 22 recites, among other features, a first detector used for decelerating the circuit substrate and a second detector used for stopping the circuit substrate, which are held by the movable member with a space therebetween in said direction parallel to the conveying direction and each of which detects a detection portion of the circuit substrate which detection portion is predetermined as an object to be detected, without contacting the detection portion. With reference to Figs. 3 and 4, the circuit board fabricating system of Asai includes a belt

conveyor, a moving device including a movable member, and a working head held by the movable member. At col. 12, lines 52-66, Asai teaches that in the vicinity of the downstream end of the belt conveyor, there are disposed a stopper device and a board detecting device for stopping and detecting the PC board, respectively. The stopper device has a stop member which is moved up and down by a suitable device between an upper position for stopping PC board and a lower position in which the stop member allows the PC board to be transferred by the belt conveyor. The board detecting device detects PC board stopped by stopper device.

Asai does not teach a first detector for decelerating the circuit substrate, and a second detector for stopping the circuit substrate held by a movable member, having space between the detectors and aligned in parallel with the conveying direction. Asai does not teach the substrate conveyor decelerating in response to detecting the detector portion of the first detector and stopping in response to the detection of the detection portion of the second detector.

For at least the foregoing reasons, Asai cannot reasonably be considered to teach, or to have suggested, the combination of all of the features positively recited in independent claim 22. Further, claims 23-35, 37 and 38 are also neither taught nor would they have been suggested, by Asai for at least the respective dependence of these claims directly or indirectly on an allowable base claim, as well as for the separately patentable subject matter that each of these claims recites. Accordingly, reconsideration and withdrawal of the rejection of claims 22-35, 37 and 38 under 35 U.S.C. §102(b) as being anticipated by Asai are respectfully requested.

The Office Action, in paragraph 4, rejects claim 36 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,272,051 to Asai. Applicant notes that U.S. Patent No. 6,272,051 is to Choi, and addresses the rejection over Choi.

Choi is directed to non-volatile memories (col. 1, lines 6-9). The Office Action alleges Choi supplies a sensor that can reasonably be considered to correspond to the reflection-type photoelectric sensor of claim 36 that the Office Action concedes is missing from Asai. The analysis of the Office Action fails for at least the following reasons. First, Applicant can find no recitation of a reflection-type photoelectric sensor in Choi. As such, Choi cannot reasonably be combined with Asai to suggest an element which is not present. Second, even were such a feature taught by Choi, Choi is not applied in a manner that would have overcome the above-identified shortfall in the application of Asai to at least the subject matter of independent claim 22.

For at least the foregoing reasons, any permissible combination of Choi and Asai cannot reasonably be considered to have suggested the combination of all of the features positively recited in claim 36.

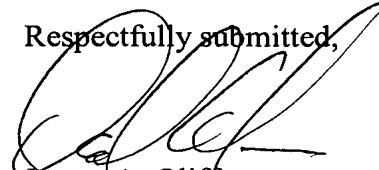
Accordingly, reconsideration and withdrawal of the rejection of claim 36 under 35 U.S.C. §103(a) as being unpatentable over Choi are respectfully requested.

Added claims 39-43 respectively depend directly or indirectly from an allowable base claim. As such, these claims are at least allowable to the same extent as independent claims 22, as well as for the separately patentable subject matter that each of these claims recites.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 22-43 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Daniel A. Tanner, III
Registration No. 54,734

JAO:DAT/eks

Attachment:
Amendment Transmittal

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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